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| 10/519,859      | 06/03/2005  | Ikuko Yairi          | 7649-0001WOUS       | 9314             |

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| EXAMINER |
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CHEEMA, AZAM M

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| ART UNIT | PAPER NUMBER |
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2166

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12/31/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |                                      |                                     |  |
|------------------------------|--------------------------------------|-------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/519,859 | <b>Applicant(s)</b><br>YAIRI ET AL. |  |
|                              | <b>Examiner</b><br>AZAM CHEEMA       | <b>Art Unit</b><br>2166             |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 28 October 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 5,6 and 11-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 5, 6 and 11-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Amendment***

#### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/28/2008 has been entered. Claim 5 has been amended. Claims 5-6 and 11-13 are pending in this application.

### ***Response to Arguments***

2. Applicant's arguments, with respect to the claim 5 has been fully considered but they are not persuasive.. After a through examination of the present application, claims 5-6 and 11-13 are remain rejected.

Applicant arguments regarding claim 5 rejection relating to prior art Fruchterman et al and Nakano et al do not teach inputting physical disability information on and a destination of a user, who requires supporting the self-sustained moving, from a communication terminal; computing, based on the physical disability information inputted from the communication terminal and sidewalk data stored in a database, which correlates to the physical disability information, and includes barrier and barrier- free information, a guide route of an optimum sidewalk to a disability condition of the user according to the physical disability information and the barrier information; combining the computed guide route with a map data stored in the

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database to output it as an electronic map, the map data being constructed for a pedestrian; and displaying the electronic map showing the guide route on the communication terminal, wherein the step of computing the guide route includes preferentially computing the sidewalk that has been passed by a plurality of users having similar physical disability information to that of the user.

The examiner respectfully submits in particular Fruchterman et al clearly shows inputting physical disability information on and a destination of a user who requires supporting the self-sustained moving, from a communication terminal (col.3, lines 15-17 and lines 26-32, col.7, lines 32-43 and col.9, lines 10-19, this invention includes a software program that runs a satellite geo positioning system primarily intended for people that are visually impaired, a complete geo positioning system comprises a GPS a DGPS receiver a notebook computer a database Sextant software and output system, The pedestrian can press the "Where am I" button at any point along the path to find his location. If the pedestrian is following a path that has been already stored in the computer, the system has the ability to alert him when it is time to make directional changes. For example, as the pedestrian approaches the intersection, the system would say "You have reached the corner of Maple and Elm, turn right heading East and continue for one hundred feet until you reach the corner of Maple and Park Blvd." In this manner, the Sextant software can guide a blind pedestrian to his final destination

, by selecting a first point or address, and a second point or address, the user retrieves a feature list presentation, which could include any feature of either point);

computing, based on the physical disability information inputted from the communication terminal and sidewalk data stored in a database, which correlates to the physical disability

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information, and includes barrier and barrier-free information, a guide route of an optimum sidewalk to a disability condition of the user according to the physical disability information and the barrier information (col.3, lines 44-55, col.5, lines 1-10 and lines 33-38 and col.7, lines 10-12 and lines 32-43, col.19, lines 14-17, different users can incorporate locations and features of particular importance into a user defined map database, by taking a GPS reading at that location and then typing the corresponding feature information into the laptop computer a user-defined map database is created, an area of exclusion is defined in the map database. This area of exclusion is a polygon that defines a boundary that the pedestrian would either not want to enter, or be notified when crossing. It can be appreciated that dates and times can be features of the area of exclusion so that, for instance, a user is warned when he is in the park after dark. Other types of areas of exclusion might be construction zones, airports, freeway ramps, bodies of water or high traffic congestion regions, all menu choices can be garnered from this keypad, so that the blind pedestrian has a more direct method of retrieving information the keypad can be attached with an extension connector on the laptop, by using the Sextant software and GPS system the pedestrian can identify his exact position along the sidewalk, The pedestrian can press the "Where am I" button at any point along the path to find his location. If the pedestrian is following a path that has been already stored in the computer, the system has the ability to alert him when it is time to make directional changes. For example, as the pedestrian approaches the intersection, the system would say "You have reached the corner of Maple and Elm, turn right heading East and continue for one hundred feet until you reach the corner of Maple and Park Blvd." In this manner, the Sextant software can guide a blind pedestrian to his final destination,

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pedestrian safety-related addresses are given the highest priority, These would be construction zones, raised walkways or other hazards that might pose a threat to a blind pedestrian); combining the computed guide route with a map data stored in the database to output it as an electronic map the map data being constructed for a pedestrian and displaying the electronic map showing the guide route on the communication terminal (col.3, lines 20-32 and col.16, lines 44-47, Sextant accurately determines a user's geographical location in a region using the GPS and then appropriately presents features of that location to the user verbally or through a Braille display. Importantly, the presentation of features describing each location is in a format that is appropriate for a blind pedestrian. A complete geo positioning system comprises a GPS, a DGPS receiver, a notebook computer, a database, Sextant software, and an output system. Preferably, the output system is a voice synthesizer. However, other types of output designed for the blind are anticipated. For instance, a Braille display could be used to output the location information to the user instead of a voice synthesizer, inputting a street address the map database can locate its corresponding longitude and latitude for determining a user's position relative to addresses on the street).

Wherein the step of computing the guide route includes preferentially computing the sidewalk having similar physical disability information to that user (col.4, lines 2-9, col.19, lines 12-17, the system records the GPS coordinates of known geo graphical locations that the user passes during his route and stores them to a history file, the user can then use the Sextant software to replay the history file, the decision of whether to present the closest physical address or not is determined by a set of preferences that are pre-programmed by the user. By default, pedestrian

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safety-related addresses are given the highest priority. These would be construction zones, raised walkways or other hazards that might pose a threat to a blind pedestrian).

But does not explicitly teach that has been passed by a plurality of users.

However, Nakano et al teaches that has been passed by a plurality of users (co.1, lines 25-30, Cartographic files to be provided to users and their relevant data are previously recorded in the storage media. The storage devices read the cartographic files recorded in the storage media when necessary. The read cartographic files are referred to by the users, or used in route search or map matching process).

Furthermore, 35 U.S.C. paragraph 112 rejection regarding claim 5 is maintained as described below.

Regarding claim 5, it is unclear as to exactly whether inputting physical disability information on communication terminal. Hence, the applicant fails to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 5, the phrase "inputting physical disability information on" renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Regarding claim 5, it is unclear as to exactly whether inputting physical disability information on communication terminal. Hence, the applicant fails to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).



Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fruchterman et al (US PAT. NO 5,470,233) in view of Nakano et al (US PAT. NO 6,636,802 B1).

For claim 5, Fruchterman teaches: A method of supporting a self-sustained moving comprising the steps of:

inputting physical disability information on and a destination of a user who requires supporting the self-sustained moving, from a communication terminal (col.3, lines 15-17 and lines 26-32, col.7, lines 32-43 and col.9, lines 10-19, this invention includes a software program that runs a satellite geo positioning system primarily intended for people that are visually impaired, a complete geo positioning system comprises a GPS a DGPS receiver a notebook computer a database Sextant software and output system, The pedestrian can press the "Where am I" button at any point along the path to find his location. If the pedestrian is following a path that has been already stored in the computer, the system has the ability to alert him when it is time to make directional changes. For example, as the pedestrian approaches the intersection, the system would say "You have reached the corner of Maple and Elm, turn right heading East and continue for one hundred feet until you reach the corner of Maple and Park Blvd." In this manner, the Sextant software can guide a blind pedestrian to his final destination

, by selecting a first point or address, and a second point or address, the user retrieves a feature list presentation, which could include any feature of either point);

computing, based on the physical disability information inputted from the communication terminal and sidewalk data stored in a database, which correlates to the physical disability

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information, and includes barrier and barrier-free information, a guide route of an optimum sidewalk to a disability condition of the user according to the physical disability information and the barrier information (col.3, lines 44-55, col.5, lines 1-10 and lines 33-38 and col.7, lines 10-12 and lines 32-43, col.19, lines 14-17, different users can incorporate locations and features of particular importance into a user defined map database, by taking a GPS reading at that location and then typing the corresponding feature information into the laptop computer a user-defined map database is created, an area of exclusion is defined in the map database. This area of exclusion is a polygon that defines a boundary that the pedestrian would either not want to enter, or be notified when crossing. It can be appreciated that dates and times can be features of the area of exclusion so that, for instance, a user is warned when he is in the park after dark. Other types of areas of exclusion might be construction zones, airports, freeway ramps, bodies of water or high traffic congestion regions, all menu choices can be garnered from this keypad, so that the blind pedestrian has a more direct method of retrieving information the keypad can be attached with an extension connector on the laptop, by using the Sextant software and GPS system the pedestrian can identify his exact position along the sidewalk, The pedestrian can press the "Where am I" button at any point along the path to find his location. If the pedestrian is following a path that has been already stored in the computer, the system has the ability to alert him when it is time to make directional changes. For example, as the pedestrian approaches the intersection, the system would say "You have reached the corner of Maple and Elm, turn right heading East and continue for one hundred feet until you reach the corner of Maple and Park Blvd." In this manner, the Sextant software can guide a blind pedestrian to his final destination,

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pedestrian safety-related addresses are given the highest priority, These would be construction zones, raised walkways or other hazards that might pose a threat to a blind pedestrian); combining the computed guide route with a map data stored in the database to output it as an electronic map the map data being constructed for a pedestrian and displaying the electronic map showing the guide route on the communication terminal (col.3, lines 20-32 and col.16, lines 44-47, Sextant accurately determines a user's geographical location in a region using the GPS and then appropriately presents features of that location to the user verbally or through a Braille display. Importantly, the presentation of features describing each location is in a format that is appropriate for a blind pedestrian. A complete geo positioning system comprises a GPS, a DGPS receiver, a notebook computer, a database, Sextant software, and an output system. Preferably, the output system is a voice synthesizer. However, other types of output designed for the blind are anticipated. For instance, a Braille display could be used to output the location information to the user instead of a voice synthesizer, inputting a street address the map database can locate its corresponding longitude and latitude for determining a user's position relative to addresses on the street).

Wherein the step of computing the guide route includes preferentially computing the sidewalk having similar physical disability information to that user (col.4, lines 2-9, col.19, lines 12-17, the system records the GPS coordinates of known geo graphical locations that the user passes during his route and stores them to a history file, the user can then use the Sextant software to replay the history file, the decision of whether to present the closest physical address or not is determined by a set of preferences that are pre-programmed by the user. By default, pedestrian

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safety-related addresses are given the highest priority. These would be construction zones, raised walkways or other hazards that might pose a threat to a blind pedestrian).

But does not explicitly teach that has been passed by a plurality of users.

However, Nakano et al teaches that has been passed by a plurality of users (co.1, lines 25-30, Cartographic files to be provided to users and their relevant data are previously recorded in the storage media. The storage devices read the cartographic files recorded in the storage media when necessary. The read cartographic files are referred to by the users, or used in route search or map matching process).

It would have been obvious to one of the ordinary skill in the art at the time invention was made to combine Nakano's teaching with Fruchterman's teaching provide a map providing system which can efficiently use the storage region of the terminal device and can also efficiently use the transmission path between the center station and the terminal device (see col.4, lines 32-36, Nakano's).

For claim 6, note that the guide route of the electronic map displayed on the communication terminal is displayed to designate the sidewalk to be passed (col.3, lines 20-32 and col.16, lines 44-47, Sextant accurately determines a user's geographical location in a region using the GPS and then appropriately presents features of that location to the user verbally or through a Braille display. Importantly, the presentation of features describing each location is in a format that is appropriate for a blind pedestrian. A complete geo positioning system comprises a GPS, a DGPS receiver, a notebook computer, a database, Sextant software, and an output system. Preferably, the output system is a voice synthesizer. However, other types of output

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designed for the blind are anticipated. For instance, a Braille display could be used to output the location information to the user instead of a voice synthesizer, inputting a street address the map database can locate its corresponding longitude and latitude for determining a user's position relative to addresses on the street, Fruchterman's).

Claims 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fruchterman et al (US PAT. NO 5,470,233) in view of Nakano et al (US PAT. NO 6,636,802 B1) further in view of Kaiho et al (US PAT. NO 3,905,437).

For claim 11, Fruchterman and Nakano do not explicitly teach wherein the physical disability information includes use of a wheelchair.

However, Kaiho et al teaches wherein the physical disability information includes use of a wheelchair (Abstract, in a wheelchair for disabled persons having side wheels with hand rims).

It would have been obvious to one of the ordinary skill in the art at the time invention was made to combine Kaiho's teaching with Fruchterman's and Nakano's teaching to provide a wheelchair for disabled persons, which can be driven by an electric motor when it is desired, so that the climbing or descending of the wheelchair over a step is facilitated (col.1, lines 40-44, Kaiho et al).

For claims 12-13, wherein the sidewalk data includes barrier information for moving in a wheelchair (col.4, lines 43-60 there is indicated diagrammatically the operation of the wheelchair for upwardly overriding a step 10 of, for instance, a curb of a sidewalk. In the diagram, the

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positions of the center of the hand-operated side wheels at different instants are indicated sequentially at A, B, and C, respectively. In this case, although the wheelchair is driven by the electric power drive, the power drive device is once elevated from the lowered state shown in FIG. 3 to the elevated position shown in FIG. 1. Then the entire wheelchair is tilted backward by, for instance, the disabled person tilting his body backward, so that the front wheel is elevated from the surface of the road, and the wheelchair is supported on the road by the side wheels the center of which is now at the point A and by the driving wheel 5 of the power drive, Kaiho et al).

### ***Conclusion***

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Azam Cheema whose telephone number is 571-270-1753. The examiner can normally be reached on Monday-Friday 7.30a.m-5.00p.m ALT Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alam Hosain can be reached on 571-272-3978. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/A. C./

Examiner, Art Unit 2166

December 24, 2008

/S. L./, December 29, 2008

/Hosain T Alam/

Supervisory Patent Examiner, Art Unit 2166